

What is claimed is:

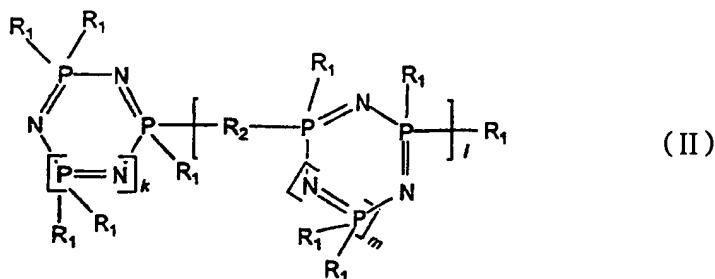
1. A flame retardant thermoplastic resin composition comprising:

5 (A) 45 to 95 parts by weight of a polycarbonate resin;

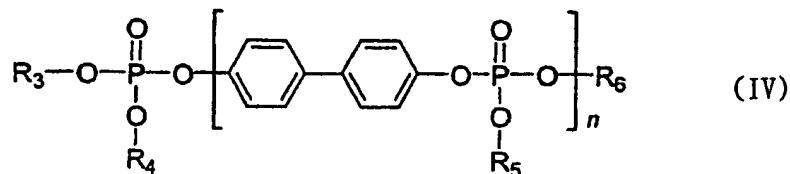
10 (B) 1 to 50 parts by weight of a rubber modified vinyl-grafted copolymer prepared by graft-polymerizing (b₁) 5 to 95 % by weight of a monomer mixture consisting of 50 to 95 % by weight of at least one selected from the group consisting of styrene, α-methylstyrene, halogen- or alkyl-substituted styrene, C₁₋₈ methacrylic acid alkyl ester, C₁₋₈ acrylic acid alkyl ester, or a mixture thereof and 5 to 50 % by weight of acrylonitrile, methacrylonitrile, C₁₋₈ methacrylic acid alkyl ester, C₁₋₈ acrylic acid alkyl ester, maleic acid anhydride, and C₁₋₄ alkyl- or phenyl N-substituted maleimide onto (b₂) 5 to 95 % by weight of a rubber polymer selected from the group consisting of butadiene rubber, acryl rubber, ethylene-propylene rubber, styrene-butadiene rubber, acrylonitrile-butadiene rubber, isoprene rubber, copolymer of ethylene-propylene-diene (EPDM), polyorganosiloxane-polyalkyl (meta)acrylate rubber complex and a mixture thereof;

15 (C) 0 to 50 parts by weight of a vinyl copolymer prepared from (c₁) 40 to 95 % by weight of at least one selected from the group consisting of styrene, α-methyl styrene, halogen or alkyl substituted styrene, C₁₋₈ methacrylic acid alkyl ester, and C₁₋₈ acrylic acid alkyl ester and (c₂) 5 to 60 % by weight of at least one selected from the group consisting of acrylonitrile, methacrylonitrile, C₁₋₈ methacrylic acid alkyl ester, C₁₋₈ acrylic acid alkyl ester, maleic acid anhydride, and C₁₋₄ alkyl or phenyl N-substituted maleimide;

20 (D) 1 ~ 30 parts by weight of a mixture of organic phosphorous compounds consisting of (d₁) 1 ~ 50 % by weight of a cyclic oligomeric phosphazene compound represented by the following Formula (II) and (d₂) 99 ~ 50 % by weight of an oligomeric phosphoric acid ester compound represented by the following Formula (IV), per 100 parts by weight of the sum of (A), (B) and (C): and



wherein R_1 is alkyl, aryl, alkyl substituted aryl, aralkyl, alkoxy, aryloxy, amino, or hydroxyl; k and m are an integer from 0 to 10; R_2 is C_{6-30} dioxyaryl or 5 alkyl substituted C_{6-30} dioxyaryl derivative; and l is a degree of polymerization and the average value of l is from 0.3 to 3. The alkoxy or the aryloxy can be substituted for alkyl, aryl, amino, or hydroxy group.



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wherein R_3 , R_4 , R_5 and R_6 are independently a C_{6-20} aryl group or an alkyl-substituted C_{6-20} aryl group, respectively, and n is an integer representing the number of repeating units of 1 to 5 and the average value of n in the oligomeric phosphoric acid ester is 1 to 3.

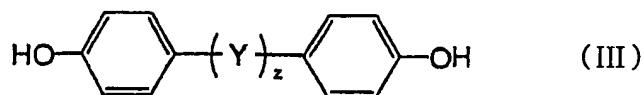
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(E) 0.05 to 5.0 parts by weight of a fluorinated polyolefin resin with average particle size of 0.05 to 1,000 μm and density of 1.2 to 2.3 g/cm^3 , per 100 parts by weight of (A)+(B)+(C).

20 2. The flame retardant thermoplastic resin composition as defined in claim 1, wherein said cyclic oligomeric phosphazene compound has a linear structure or a structure with a branched chain at the main chain.

3. The flame retardant thermoplastic resin composition as defined in claim 1, wherein R₁ is phenoxy and R₂ is a derivative from catechol, resorcinol, hydroquinone, or the bisphenylenediol represented by the following Formula (III):

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wherein Y is alkylene of C₁₋₅, alkylidene of C₁₋₅, cycloalkylidene of C₅₋₆, S or SO₂, and z is 0 or 1.

10 4. The flame retardant thermoplastic resin composition as defined in claim 1, wherein said R₃, R₄, R₅ and R₆ are respectively phenyl, naphthyl, or substituted phenyl in which alkyl is methyl, ethyl, isopropyl, and t-butyl.